UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

30593 7590 02/17/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910

RESTON, VA 20195

EXAMINER

ALMEIDA, DEVIN E

ART UNIT PAPER NUMBER

2432

DATE MAILED: 02/17/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/736,838	12/17/2003	Hee-Kwan Son	8947-000062/US	5435		
TITLE OF INVENTION: MONTGOMERY MODULAR MULTIPLIER AND METHOD THEREOF						

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	05/18/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat	form should be used to correspondence including d below or directed off tions	or transmitting ig the Patent, ierwise in Bloo	the ISSI advance o k 1, by (JE FEE and PUBLICAT: rders and notification of r a) specifying a new corre	ON FEE (if requi naintenance fees w pondence address;	red). I /ill be and/or	Blocks 1 through 5 s mailed to the current (b) indicating a sepa	hould be c correspond trate "FEE	ompleted where lence address as ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block I for any change of address)					Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
30593 HARNESS, DI P.O. BOX 8910 RESTON, VA 20	7590 6217 CKEY & PIERC 0195			I be	Cer	tificate	of Mailing or Trans s) Transmittal is being ficient postage for firs ISSUE FEE address I) 273-2885, on the d	deposited.	with the United l in an envelope being facsimile d below.
									(Depositor's name)
									(Signature)
				L					(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIR	MATION NO.
10/736,838	12/17/2003			Hee-Kwan Son		89	947-000062/US		5435
				AND METHOD THEREO					
APPLN, TYPE	SMALL ENTITY	ISSUE FEE	DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	S FEE	TOTAL FEE(S) DUE	D	ATE DUE
nonprovisional	NO	\$151	0	\$300	\$0		\$1810	0:	5/18/2009
EXAM	INER	ART UN	TT	CLASS-SUBCLASS					
ALMEIDA,		2432		380-030000					
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attack	nge of Corresp Indication for ed. Use of a C	ondence m ustomer	2. For printing on the p (I) the names of up to or agents OR, alternati (2) the name of a singli registered attorney or a 2 registered pattent atto- listed, no name will be THE PATENT (print or tyl data will appear on the p IT a substitute for filing an	3 registered paten wely, e firm (having as a agent) and the nam- meys or agents. If a printed.	memb es of u no nam	er a 2 p to ie is 3	ocument ha	s been filed for
(A) NAME OF ASSIC	GNEE			(B) RESIDENCE: (CITY	and STATE OR C	OUNT	'RY)		
4a. The following fee(s) a ☐ Issue Fee ☐ Publication Fee (N ☐ Advance Order - #	o small entity discount j	permitted)	4	b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038 authorized to char	is atta	ched. required fee(s), any de	ficiency, or	
	s SMALL ENTITY state	is. See 37 CFR		☐ b. Applicant is no lon					
NOTE: The Issue Fee and interest as shown by the r	d Publication Fee (if req records of the United Sta	uired) will not tes Patent and	be accepte Frademark	d from anyone other than to Office.	he applicant; a regi	stered a	attorney or agent; or th	ne assignee	or other party in
Authorized Signature					Date				
Typed or printed name			Registration No.						
This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C itality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DO 13-1450.	FR 1.311. The U.S.C. 122 an USPTO. Time rden, should be O NOT SEND I	information of 37 CFR will vary sent to the EES OR	on is required to obtain or a 1.14. This collection is est depending upon the indiv the Chief Information Office COMPLETED FORMS To	etain a benefit by the imated to take 12 redual case. Any co er, U.S. Patent and O THIS ADDRESS	he publ minutes mment Traden i. SENI	lic which is to file (and to complete, including s on the amount of the lark Office, U.S. Dep D TO: Commissioner	by the US g gathering me you req artment of for Patents,	PTO to process) ;, preparing, and aire to complete Commerce, P.O. P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 02/17/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/736,838	12/17/2003	Hee-Kwan Son	8947-000062/US	5435	
30593	590 02/17/2009		EXAMINER		
HARNESS, DICKEY & PIERCE, P.L.C.			ALMEIDA, DEVIN E		
P.O. BOX 8910		ART UNIT	PAPER NUMBER		
RESTON, VA 20	195		2432		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 865 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 865 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/736 838 SON, HEE-KWAN Notice of Allowability Examiner Art Unit DEVIN ALMEIDA 2432 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 1/12/2009. The allowed claim(s) is/are 8,10-16,18,19,21-27,29-35 37, 38 and 53. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) 🔯 All b) ☐ Some* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other .

/Benjamin E Lanier/ Primary Examiner, Art Unit 2432 Application/Control Number: 10/736,838

Art Unit: 2432

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Castellano on 1/2/2009.

The application is amendment as follows:

Claims 39-52 are cancelled.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: For claims 8, 10-16, 18, 19, 21-25, 30-35, 37, 38 and 53 the prior art does not show a Booth AND Gate wherein at least one value from the partial product synch register is input to the Booth AND gate with the other limitations of the claim.

For claims 26, 27 and 29 the prior art does not show a second mux and a third mux wherein the second mux inputs a first portion of the previous value of the multiple modulus selection signal and outputs a first portion of the current multiple modulus selection signal, and wherein the third mux inputs a second portion of the previous value of the multiple modulus selection signal and outputs a second portion of the current multiple modulus selection signal with the other limitations of the claim.

Application/Control Number: 10/736,838

Art Unit: 2432

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Almeida whose telephone number is 571-270-1018. The examiner can normally be reached on Monday-Thursday from 7:30 A.M. to. 5:00 P.M. The examiner can also be reached on alternate Fridays from 7:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

/Devin Almeida/ Examiner, Art Unit 2432 1/2/2009

/Benjamin E Lanier/ Primary Examiner, Art Unit 2432